

NON-PUBLIC?: N  
ACCESSION #: 9208170190  
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Shearon Harris Nuclear Power Plant - PAGE: 1 OF 03  
Unit #1

DOCKET NUMBER: 05000400

TITLE: Manual Reactor Trip/AFW Actuation due to Low S/G level caused by  
inadvertently deenergizing MFP recirc valve power supply.

EVENT DATE: 07/15/92 LER #: 92-009-00 REPORT DATE: 08/14/92

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 30

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR  
SECTION:  
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:

NAME: Michael Verrilli Specialist - TELEPHONE: (919) 362-2303  
Regulatory Compliance

COMPONENT FAILURE DESCRIPTION:

CAUSE: B SYSTEM: EB COMPONENT: BKR MANUFACTURER: B455  
REPORTABLE NPRDS: Y

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

On July 15, 1992 a supply breaker failure occurred while starting Exhaust Fan E-18 which resulted in the fan running with both the inlet and outlet dampers closed. This condition created a potential for fire in the fans charcoal filter unit. Remote and local efforts were made to trip open the breaker and secure the fan, but were unsuccessful. The control room staff determined that the supply bus for the E-18 fan (Bus #1D-2) would have to be deenergized to allow the fan breaker to be racked out and the fan secured. When 1D-2 was deenergized it caused the "B" Main Feed Pump and "B" Condensate Booster Pump Recirculation Valves to fail to the full-open position. This caused the running Main Feed Pump to trip on low suction pressure and resulted in rapidly decreasing Steam Generator water levels. A manual reactor trip was initiated by the control operator as required. All safety systems functioned as required

including an automatic Auxiliary Feedwater System actuation. The cause of this event was a failure of the E-18 supply breaker. This breaker was replaced and satisfactorily tested on July 15, 1992.

END OF ABSTRACT

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#### EVENT DESCRIPTION:

On July 15, 1992 at approximately 0230, an attempt was made from the main control room to start Reactor Auxiliary Building Exhaust Fan E-18. This start attempt resulted in no "run" indication or apparent control of the fan. Auxiliary operators were sent to the fan and fan supply breaker to investigate. They observed that the fan was running and that the inlet and outlet dampers were both closed. Attempts to secure the fan both locally and from the control room were unsuccessful. This situation created an immediate concern over the possibility of a fire in the fans charcoal filter unit. The control room staff decided to deenergize the supply bus (Bus #1D-2) for the E-18 fan to prevent this possibility. After completing a review to identify any loads that would be affected by deenergizing bus 1D-2, the bus supply feeder was opened and the supply breaker for E-18 was racked out. Shortly after 1D-2 was deenergized, control room operators observed "B" Main Feed Pump suction pressure decreasing. Attempts were immediately made to increase condensate booster pump speed, but they did not prevent the feed pump from tripping on low suction pressure. A manual reactor trip and turbine trip was then initiated as required, due to rapidly decreasing steam generator levels. All safety systems operated as required including an automatic Auxiliary Feedwater actuation due to the loss of the running main feed pump. The plant was stabilized with the appropriate emergency operating procedures in Mode-3.

This event is being reported in accordance with 10CFR50.73(a)(2)(iv) as an Engineered Safety Feature and Reactor Protection System actuation. There have been no similar events reported.

#### CAUSE:

The cause of this event was a failure of the E-18 supply breaker. This failure prevented the breaker from being tripped both manually and electrically and also blocked the open signal to the inlet and outlet dampers from the control switch. A contributing factor was that the "B" Main Feed Pump and "B" Condensate Booster Pump Recirc Valves were not identified during the load review conducted prior to deenergizing 1D-2. During normal operating conditions, more time would have been available

to fully research affected loads and take the needed precautions, but due to the potential fire threat, review time was limited and this component was not identified.

#### SAFETY SIGNIFICANCE:

There were no safety consequences as a result of this event. All safety systems functioned as required to place the plant in a safe condition and the possibility of a fire in the E-18 charcoal filter was averted by deenergizing bus 1D-2.

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#### CORRECTIVE ACTIONS:

1. The supply breaker for the E-18 Fan was replaced on July 15, 1992.
2. Investigation into the breaker failure revealed mechanical binding in the breakers arcing contact. The apparent cause for this binding was pitting on the arcing contact spring retaining pin. As a result of this, Preventive Maintenance Procedure PM-E0012 was revised to include periodic inspections of this pin and buffing or pin replacement if needed.
3. Training will be performed for operations personnel to ensure their awareness of this event.

#### EIIS INFORMATION:

Medium Voltage Power System (Class-1E) - EB

ATTACHMENT 1 TO 9208170190 PAGE 1 OF 1

CP&L  
Carolina Power & Light Company  
P.O. Box 165 o New Hill, N. C. 27562

C. S. HINNANT  
General Manager - Harris Plant

AUG 14 1992

Letter Number: HO-920119

U.S. Nuclear Regulatory Commission  
ATTN: NRC Document Control Desk

Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1  
DOCKET NO. 50-400  
LICENSE NO. NPF-63  
LICENSEE EVENT REPORT 92-009-00

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours

C. S. Hinnant  
General Manager  
Harris Nuclear Project

MV:dmw

Enclosure

cc: Mr. S. D. Ebnetter (NRC - RII)  
Mr. N. B. Le (NRC - RII)  
Mr. J. E. Tedrow (NRC - SHNPP)  
Mr. G. E. Vaughn

MEM/LER92-009/1/OS1

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